

S.EPIDERMIDIS STRAIN K28 SdrG

**FIG. 1**

# CODING SEQUENCE FOR SdrF - INCLUDES FLANKING SEQUENCES

tattggataaattatgcttataaagtatttacataaaaaatgtaaatgcaatttacaagta  
Y W I N Y A Y K V F T - K C K C N L Q V  
aatattcaaatatttccttgtaaaatatattttaactggagggtatagtagtaaaaaag  
N I Q I I S L - N I Y F N W R Y S M K K  
agaagacaaggaccaattacaagagagtggaatttctatccaacaaggtaaaacaagtac  
R R Q G P I N K R V D F L S N K V N K Y  
tcgattaggaagttcacagtaggtacagcttcaatactcgtgggtgctacgttaattgttt  
S I R K F T V G T A S I L V G A T L M F  
ggtgccgacagaatgaggctaaaggcgtgaagacaatcaattagaatcagcttcaaaa  
G A A D N E A K A A E D N Q L E S A S K  
gaagaacagaaaggtagtcgtgataatgaaaactcaaaacttaatcaagtcgatttagac  
E E Q K G S R D N E N S K L N Q V D L D  
aacggatcacatagttctgagaaaacaacaatgtaaaactgcaactgaagtataaaaaa  
N G S H S S E K T T N V N N A T E V K K  
gttgaagcaccacgaagtgacgtatctaaagcctaagctaataagaagcagtagtgacg  
V E A P T T S D V S K P K A N E A V V T  
aatgagtcactaaacaaaaacaacagaagcaccactgttaatgaggaatcaatagct  
N E S T K P K T T E A P T V N E S I A

FIG. 2

gaaacacccaaacctcaactacacaacaagattcgactgagaagaataatccatcttta  
E T P K T S T T Q Q D S T E K N N P S L  
aagataatttaattcatcctcaacgacatctaaagaagtaaacacagacgaacattct  
K D N L N S S S T T S K E S K T D E H S  
actaagcaagctcaaatgttactaataataatcaaatcttagacacaaatgactctccaact  
T K Q A Q M S T N K S N L D T N D S P T  
caaagtgaagaaacttcatacaagcaataacgacagtagacagataatcagtcagcacct  
Q S E K T S S Q A N N D S T D N Q S A P  
tctaaacaattagattcaaaaccatcagaacaaaagtatatataaaacaaaatttaatgat  
S K Q L D S K P S E Q K V Y K T K F N D  
gaacctactcaagatgttgaacacacgacaactaaattaaaaacaccttctgtttcaaca  
E P T Q D V E H T T T K L K T P S V S T  
gatagttcagtcfaatgaagcaagattacacacgaagtgtgtagctagtttaggtgtt  
D S S V N D K Q D Y T R S A V A S L G V  
gattctaataagaaacagaagcaattacaatgcagtttagagacaatttagatttaaagct  
D S N E T E A I T N A V R D N L D L K A  
gcattagagaacaaatcaatgaagcaatcattgtctgaagcactaaaaaagacttttct  
A S R E Q I N E A I I A E A L K K D F S  
aaccctgattatgggtgcgatacgccatttagctctaaacagatctcaatcaaaaaattca  
N P D Y G V D T P L A L N R S Q S K N S

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*FIG. 2(cont'd)*

ccacataagagtgcacgcacgaatttaataagagtttagctgctgagcctaagtagt  
P H K S A S P R M N L M S L A A E P N S  
ggtaaaaatgtgaatgataaagttaaaatcacaaccctacgctttcacttaataagagt  
G K N V N D K V K I T N P T L S L N K S  
aataatcacgctaataacgtaatatggccaacgaagtaacgaacaatttaatttaaagca  
N N H A N N V I W P T S N E Q F N L K A  
aattatgaattagatgacagcataaaagaggagagatacttttactattaagtatggtcag  
N Y E L D D S I K E G D T F T I K Y G Q  
tatattagaccgggtggtttagaaacttcctgcaataaaaactcaactagtagtaaggat  
Y I R P G G L E L P A I K T Q L R S K D  
ggctctattgtagctaattggtgtatatgataaaaactacaataacgacgacttatacat  
G S I V A N G V Y D K T T N T T Y T F

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*FIG. 2(cont'd)*

actaactatgttgatcaataatcaaaaatatcacaggtagtttttgattttaattgcgacgcct  
 T N Y V D Q Y Q N I T G S F D L I A T P  
 aagaggaaacagcaattaaaggataatacagaattatcctatgggaagtgaacgattgctaac  
 K R E T A I K D N Q N Y P M E V T I A N  
 gaagtagtcaaaaagacttcatgtgtggattatggtaataaaaaggacaatacaactaca  
 E V V K K D F I V D Y G N K K D N T T  
 gcagcggtagcaaatgtggataatgttaataataaacataaacgaagttgtttatctaaac  
 A A V A N V D N V N N K H N E V V Y L N  
 caaataaccaaaaccctaataatgctaataatttctcaacagtaaaaaatggtgaaattt  
 Q N N Q N P K Y A K Y F S T V K N G E F 5  
 ataccaggtgaagtgaagtttacgaagtgaaggataccaatgcgtagtagacttc 28  
 I P G E V K V Y E V T D T N A M V D S F  
 aatcctgatttaaatagttctaatgttaaaagatgtgacaagtcaatttgcacctaaagta  
 N P D L N S S N V K D V T S Q F A P K V  
 agtgcagatgggtactagagttgatatcaattttgctagaagtatggcaaatggtaaaaag  
 S A D G T R V D I N F A R S M A N G K K  
 tataattgtaactcaagcagtgagaccaacgggaactggaaatgtttataccgaatatgg  
 Y I V T Q A V R P T G T G N V Y T E Y W  
 ttaacaagagatgggtactaccaatacaaatgatttttacogtggaacgaagtctacaacg  
 L T R D G T T N T N D F Y R G T K S T T

**FIG. 2(cont'd)**

gtgacttatctcaatgggtcttcaacagcacaggggataatactacatatagtcctaggt  
 V T Y L N G S S T A Q G D N P T Y S L G  
 gactatgtatgggttagataaaaaataaacgggtgttcaagatgatgagaaagggttta  
 D Y V W L D K N K N G V Q D D D E K G L  
 gcagggtgtttatgttactctttaaagacagtaacaatagagaattacaacgtgtaactact  
 A G V Y V T L K D S N N R E L Q R V T T  
 gatcaatctggacattatcaatttgataatttacaaaaatggaaacgtacacagtcgagttt  
 D Q S G H Y Q F D N L Q N G T Y T V E F  
 gcgattccctgataattatacgccatctcccgaataattctacaatatgatgcaatagat  
 A I P D N Y T P S P A N N S T N D A I D  
 tcagatgggtgaacgtgatggtacacgtaaagtagttgttgccaaaggaaacaattaataat  
 S D G E R D G T R K V V V A K G T I N N  
 gctgataatatgactgtagatactggcttttatttaactcctaataatacgaatgtcggagat  
 A D N M T V D T G F Y L T P K Y N V G D  
 tatgtatgggaagatacaaaataaagatgggtatcccaagatgacaatgaaaaaggaaatttct  
 Y V W E D T N K D G I Q D D N E K G I S  
 ggtgttaaagtaacgtttaaaaaataaaatggagatactattggcacaacgacaacagat  
 G V K V T L K N K N G D T I G T T T D  
 tcaaatggtaaatatgaattcacagggtttagagaacggggattacacaatagaatttgag  
 S N G K Y E F T G L E N G D Y T I E F E

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*FIG. 2(cont'd)*

acgccggaaggctacacaccgactaaacaaaactcgggaagtgaacgaaggtaaagattca  
 T P E G Y T P T K Q N S G S D E G K D S  
 aacggtagcgaaaacacagtcacagtcacagtcacagataataaaacaatagactcaggt  
 N G T K T T V T V K D A D N K T I D S G  
 ttctacaagccaacatatataacttaggtgactatgtatgggaagatacaaaataaagatggt  
 F Y K P T Y N L G D Y V W E D T N K D G  
 attcaagacgacagtgaaaaggatcttctggggttaaagtgaacgttaaagataaaaat  
 I Q D D S E K G I S G V K V T L K D K N  
 ggaaatgccattgggacaacgcacaacagacgcaagtgggtcattatcaatttaaaggatta  
 G N A I G T T T D A S G H Y Q F K G L  
 gaaaatggaagctacacagttgagtttgagacacccatcagggttatcacccgacaaaagcg  
 E N G S Y T V E F E T P S G Y T P T K A

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*FIG. 2(cont'd)*

aattcagggtcaagataataactgtagattccaacgggtataaacaacaacagggtatcatctaac  
N S G Q D I T V D S N G I T T G I I N  
ggagctgataatctcacaattgatagtggtttctacaaaaaacacccaaaaatatagtgtcgga  
G A D N L T I D S G F Y K T P K Y S V G  
gattatgtatgggaagatacaaaataaagatgggtatccaagatgacaatgaaaagggaatt  
D Y V W E D T N K D G I Q D D N E K G I  
tctgggttaaagtaacgttaaaggatgaaaaaggaaataataattagcactacaacaact  
S G V K V T L K D E K G N I I S T T T  
gatgaaaatgggaagtatcaatttgataatttagatagtggttaattacattatcatttt  
D E N G K Y Q F D N L D S G N Y I I H F  
gagaaaccggaaggcatgactcaaaactacagcaaatctctggaaatgatgatgaaaaagat  
E K P E G M T Q T T A N S G N D D E K D  
gctgatgggaagatgttcgtgttacgattactgattcatgatgactttagtataagataat  
A D G E D V R V T I T D H D D F S I D N  
ggttattttgacgatgattcagacagtgactcagacgagatagtgattcagactcagac  
G Y F D D D S D S D S D A D S D S D  
agtactcggacgcagacagcattctgacgcagacagtgactcagacgagatagtgat  
S D S D A D S D S D A D S D A D S D  
tctgactcagacagcactcagacgagatagtgattccgattcagacagcagcactcgat  
S D S D S D A D S D S D S D S D

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**FIG. 2(cont'd)**



tcagatagtgtattcggatgcagacagcgactcggattcttgacagtgatcttgacgcagac  
 S D S D S D A D S D S D S D S D S D A D  
 agtgactcagattcagacagtgtactcggattcagacagcgattcggattccgatttcagac  
 S D S D S D S D S D S D S D S D S D S D  
 agtgactcggattcagacagtgtactcagactccgacagtgtattccgattcagatagcgac  
 S D S D S D S D S D S D S D S D S D S D  
 tccgacgcagatagtgtattcggacgcagacagtgtactcagattcagacagtgtattccggac  
 S D A D S D S D A D S D S D S D S D S D  
 gcagacagtgtactcggactcagatagtgtattcagatgcagacagcgattcagactcagat  
 A D S D S D S D S D S D A D S D S D S D 9 / 28  
 agcgactcggattcagacagcgactccgacgcagacagcgactcggattcagatagtgtat  
 S D S D S D S D S D A D S D S D S D S D  
 tctgactcagacagtgtactcagattccgatatgtgtattcggattcagatagtgtattccgac  
 S D S D S D S D S D S D S D S D S D S D  
 gcagacagcgattcggattccgatatagcgattcagactcagacagcgattcagatttcagac  
 A D S D S D S D S D S D S D S D S D S D  
 agcgactcagattcagatagtgtattccgacgcagacagcgatgcagacagcgactcagac  
 S D S D S D S D S D A D S D A D S D S D  
 gcagacagtgtattcagatgcagacagcgattcttgactcagatagtgtactcagacgcagat  
 A D S D S D A D S D S D S D S D S D A D

**FIG. 2(cont'd)**

..  
..  
agtattccgattccgatatgcgatttcagatttctgattgactcagactcagacagtgac  
S D S D S D S D S D S D S D S D S D  
tcagattccgatatgcgactcggatttcagatatgtagtattccgacgcagacagtgactcagac  
S D S D S D S D S D S D S D A D S D S D  
tcagatagtgactcggattccgatatgtagtattccgaocgcagacagcgatttctgactcagat  
S D S D S D S D S D S D A D S D S D  
agtactcagacgcagatatgtagtattccgatttccgatatgcgatttcggatgcagacagcgac  
S D S D A D S D S D S D S D S D A D S D  
tcggatttcagatatgtagtattccgacgcagacagtgactcagactcagatatgtagtactcggat  
S D S D S D S D A D S D S D S D S D S D  
tccgatatgtagtattccgacgcagacagcgatttcggatttccgatatgcgatttccagactcagac  
S D S D S D A D S D S D S D S D S D S D

**FIG. 2(cont'd)**

agcattcagattcagacagcgactcagattccgatatgtgattccgatttcagacagtgac  
 S D S D S D S D S D S D S D S D S D S D  
 tcggattccgatatgtgactcagactcagacagtgactcagattcagatagcgaactcagat  
 S D S D S D S D S D S D S D S D S D S D  
 tcagacagtgattcggactcagatatgtgactccgatttcagacagtgattcggattccgat  
 S D S D S D S D S D S D S D S D S D S D  
 agcattcggattccgatatgtgactcggatttcagacagtgattcggactcagacagcgac  
 S D S D S D S D S D S D S D S D S D S D  
 tccgattcagatatgttccgactcagacagcgattcggattccgatatgtgactcggat  
 S D S D S D S D S D S D S D S D S D S D  
 tcagacagtgattcggactcagacagcgactccgatttcagatatgtgattccgacgcagac  
 S D S D S D S D S D S D S D S D S D A D  
 agcgactccgatttcagatatgtgattcggacgcagacagcgattccgatatgtgactcggat  
 S D S D S D S D S D A D S D S D S D S D  
 tcagacagtgattcggactcagacagcgattccgatttcagacagtgactcggactcagat  
 S D S D S D S D S D S D S D S D S D S D  
 agcgactcggatttcagacagtgactcggactcagatatgtgactccgatttcagacagcgac  
 S D S D S D S D S D S D S D S D S D S D  
 tcggattctgataaaaatgcaaaaagataaaattacctgatacaggagcaaatgaagatcat  
 S D S D K N A K D K L P D T G A N E D H

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**FIG. 2(cont'd)**

```

gattctaaaggcacattacttggaactttatttgcaggtttaggagcattattattagga
D S K G T L L G T L F A G L G A L L L G
agacgtcgtaaaaaagataataaagaaaaatagcactatttgattcattcataagttattt
R R R K K D N K E K * H Y - F I H K L F
caagccaggctctatatggccctgggtttgaaatcatattaaattgaaaggagaaaaaatga
Q A R S I W P G L K S Y - I E R R K R -
gatatgg
V W

```

**FIG. 2(cont'd)**

SdrG coding and flanking sequences.

atattgcaaaaaagacttataactataattgtattttactctagaaacgatttttacttgaa

I A K K T Y I L Y C I L L - K R F L L E

aattacattgaaatagtc aaagataaggagtttttatgatttaaaaaataatttacta

N Y I E I V K D K E F L - L K K N N L L

actaaaaagaaacctatagcaaaataaataccaataaataatgcaattagaaaaattcacagta

T K K K P I A N K S N K Y A I R K F T V

ggtacagcgtctattgtaatagggtgcagcattattgttggtttaggtcataatgaggcc

G T A S I V I G A A L L F G L G H N E A

aaagctgaggagaatacagtacaagacgttaaagattcgaatatggatgaattatca

K A E E N T V Q D V K D S N M D D E L S

gatagcaatgatcagtc cagtaatgaagaaaagaatgatgtaatcaataatagtcagtca

D S N D Q S S N E E K N D V I N N S Q S

ataaacaccgatgatgataaccaataaaaaagaagaaacgaatagcaacgatgccata

I N T D D D N Q I K K E E T N S N D A I

gaaaatcgctctaaagataatacacagtc aacaaataatgtagatgaaaaacgaagcaaca

E N R S K D I T Q S T T N V D E N E A T

ttttacaaaagacccctcaagataatactcagcttaaagaagaagtggtaaaagaaccc

F L Q K T P Q D N T Q L K E E V V K E P

tcatcagtcgaatcctcaaattcatcaatggatactgcccaacaaccatctcatacaaca

S S V E S S N S S M D T A Q Q P S H T T

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FIG. 3

ataatagtgaagcatctattcaaaacaagtgaataatgaagaaaattccgcgtatcagat  
 I N S E A S I Q T S D N E E N S R V S D  
 ttgctaactctaaaataatagagagtaaacactgaatccaataaagaagaataactata  
 F A N S K I I E S N T E S N K E E N T I  
 gagcaacctaacaagtaagagaagattcaataacaagtcacccgtctagctataaaaat  
 E Q P N K V R E D S I T S Q P S S Y K N  
 atagatgaaaaaatttcaaatcaagatgagttattaaatttaccataaatgaatatgaa  
 I D E K I S N Q D E L L N L P I N E Y E  
 aataaggttagaccgttatctacaacatctgccaaaccatcgagtaagcgtgtaaccgta  
 N K V R P L S T T S A Q P S S K R V T V  
 aatcaattagcggcagaacaagggttcgaatgttaatcatttaataaagttactgatcaa  
 N Q L A A E Q G S N V N H L I K V T D Q  
 agtattactgaaggatatgatgatgtggtattattaaagcacatgatgctgaaaac  
 S I T E G Y D D S D G I I K A H D A E N  
 ttaatctatgatgtaacttttgaagtagatgataaaggtgaaatctggtgatacgatgaca  
 L I Y D V T F E V D D K V K S G D T M T  
 gtgaatatagataagaatacagttccatcagatttaaccgatagttttgcaataccaaaa  
 V N I D K N T V P S D L T D S F A I P K  
 ataaaagataattctggagaaatcatcgctacagggtacttatgacaacacaaataaaciaa  
 I K D N S G E I I A T G T Y D N T N K Q

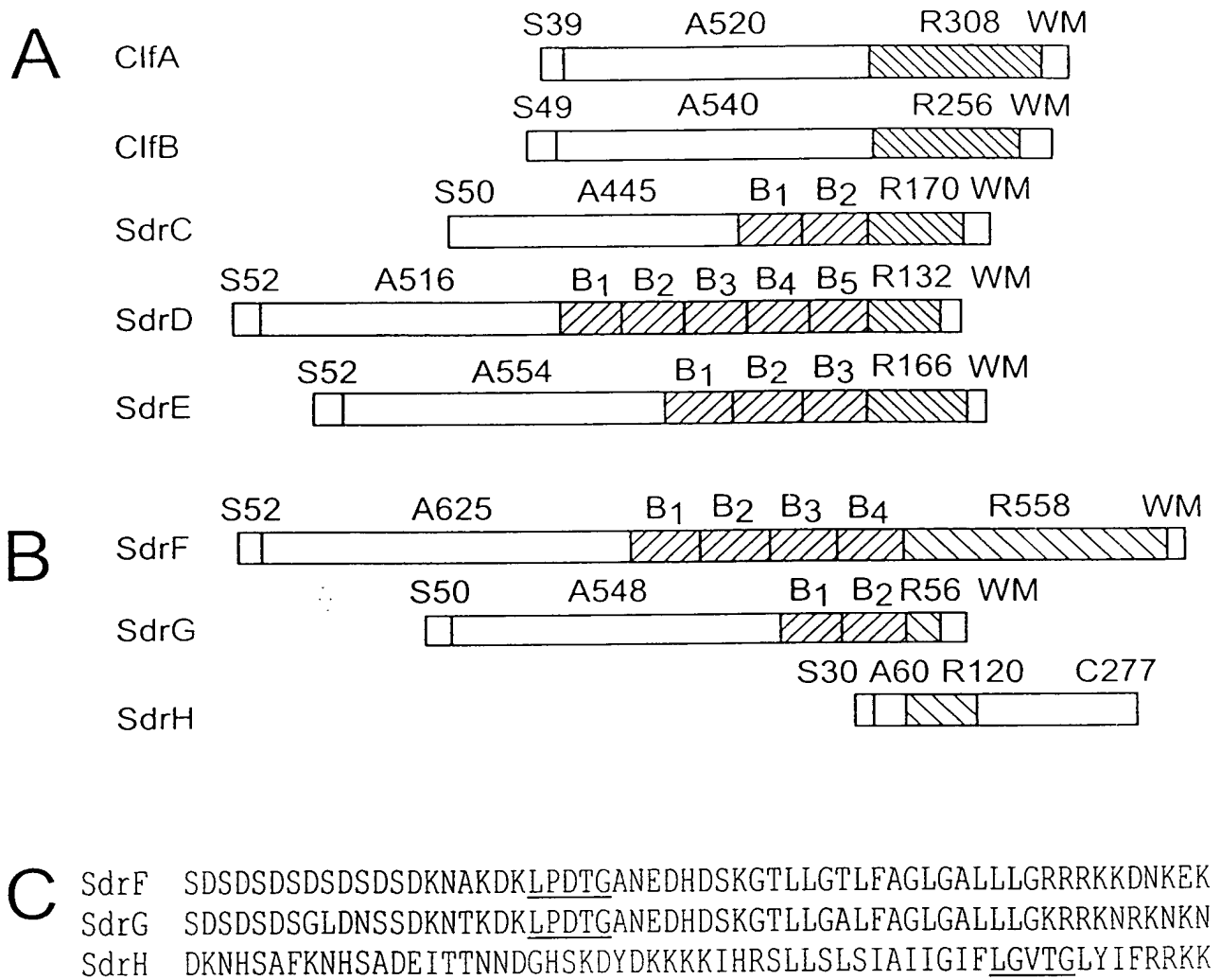
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**FIG. 3(cont'd)**

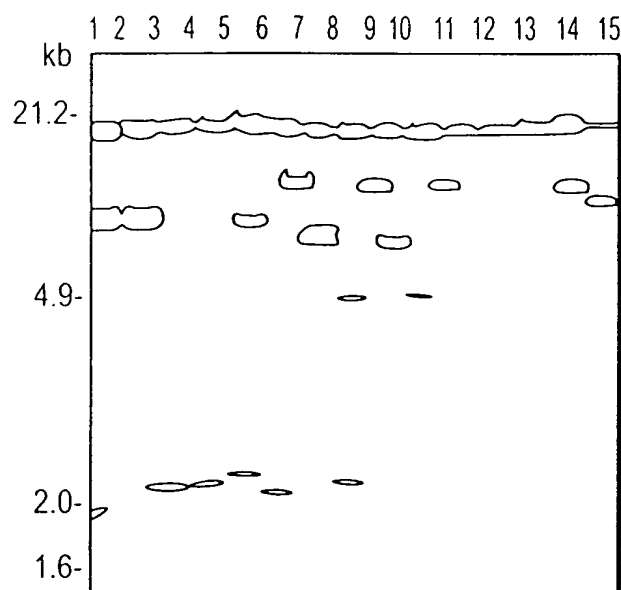
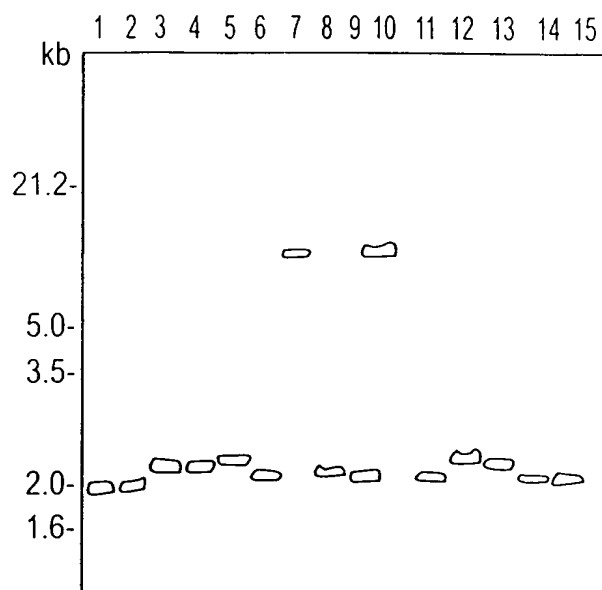
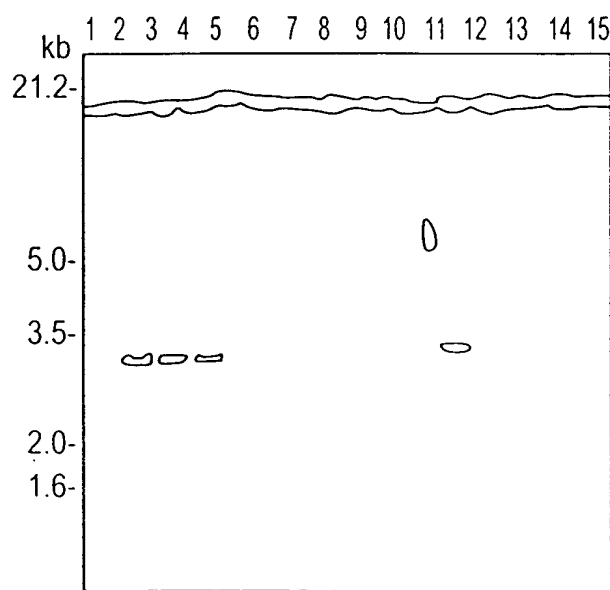
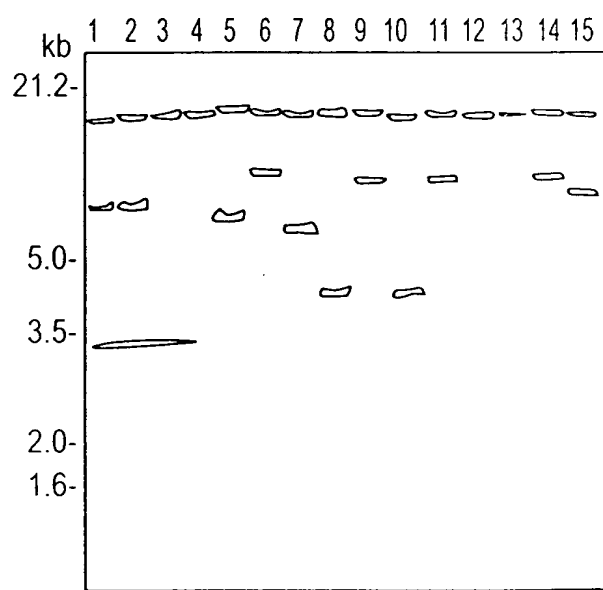
attacctacacttttacagattatgtagataaataatgaaaaatatataagcgcaccttaaa  
I T Y T F T D Y V D K Y E N I K A H L K  
ttaacatcacattgataaaatcaaaagggttccaaataataacactaagtttagatgtagaa  
L T S Y I D K S K V P N N T K L D V E  
tataagacggcccttcatcagtaaaataaaacaattacgggttgaaatatcaaaaacctaac  
Y K T A L S S V N K T I T V E Y Q K P N  
gaaaatcggactgctaaccttcaaaagtatgttcacaaaacatagatacgaaaaaccataca  
E N R T A N L Q S M F T N I D T K N H T  
gttgagcaaacgatttatataaccctcttcgttatttcagccaagaacaaatgtaaat  
V E Q T I Y I N P L R Y S A K E T N V N  
atttcaggggaatggcgatgaagggttcaacaattatcgacgatatgtaacaatcattaaagtt

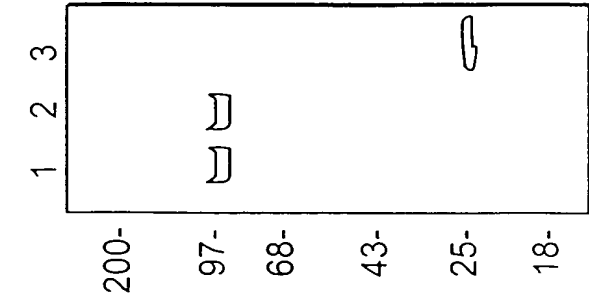
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*FIG. 3(cont'd)*

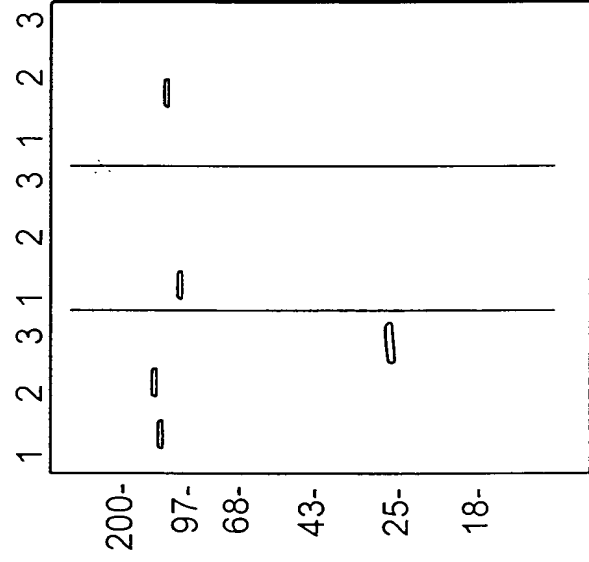
**FIG. 5**



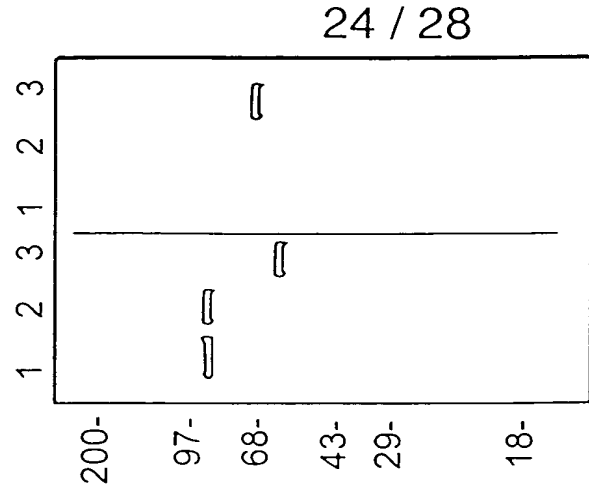
**FIG. 6A****FIG. 6B****FIG. 6C****FIG. 6D**



**FIG. 7A**

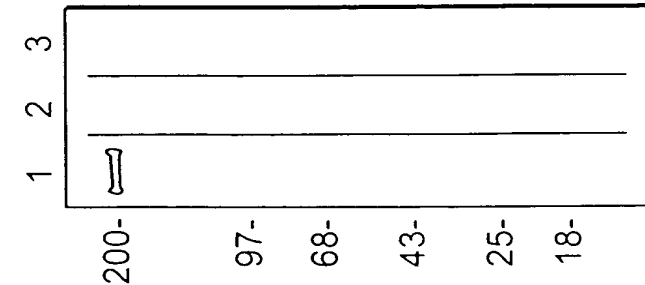


**FIG. 7B**

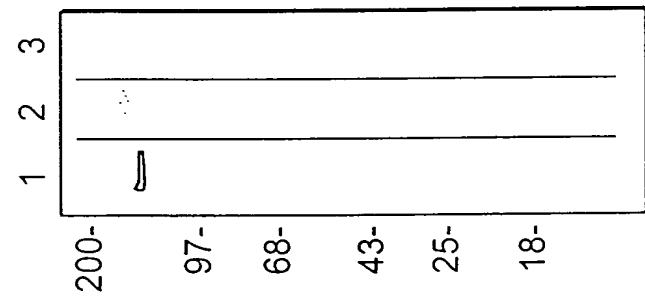


**FIG. 7C**

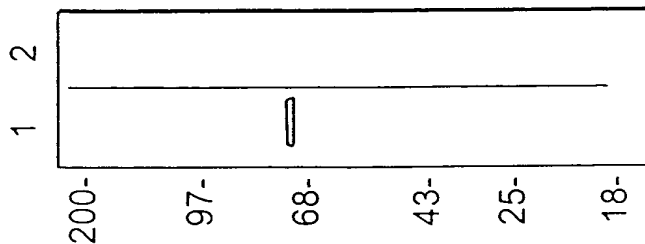
1 1



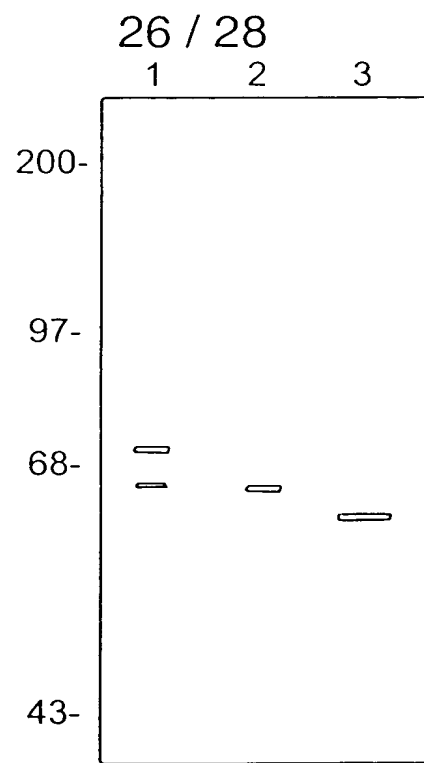
**FIG. 8A**



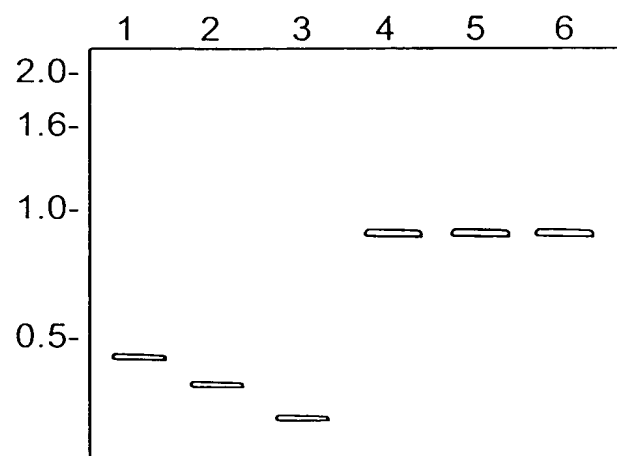
**FIG. 8B**



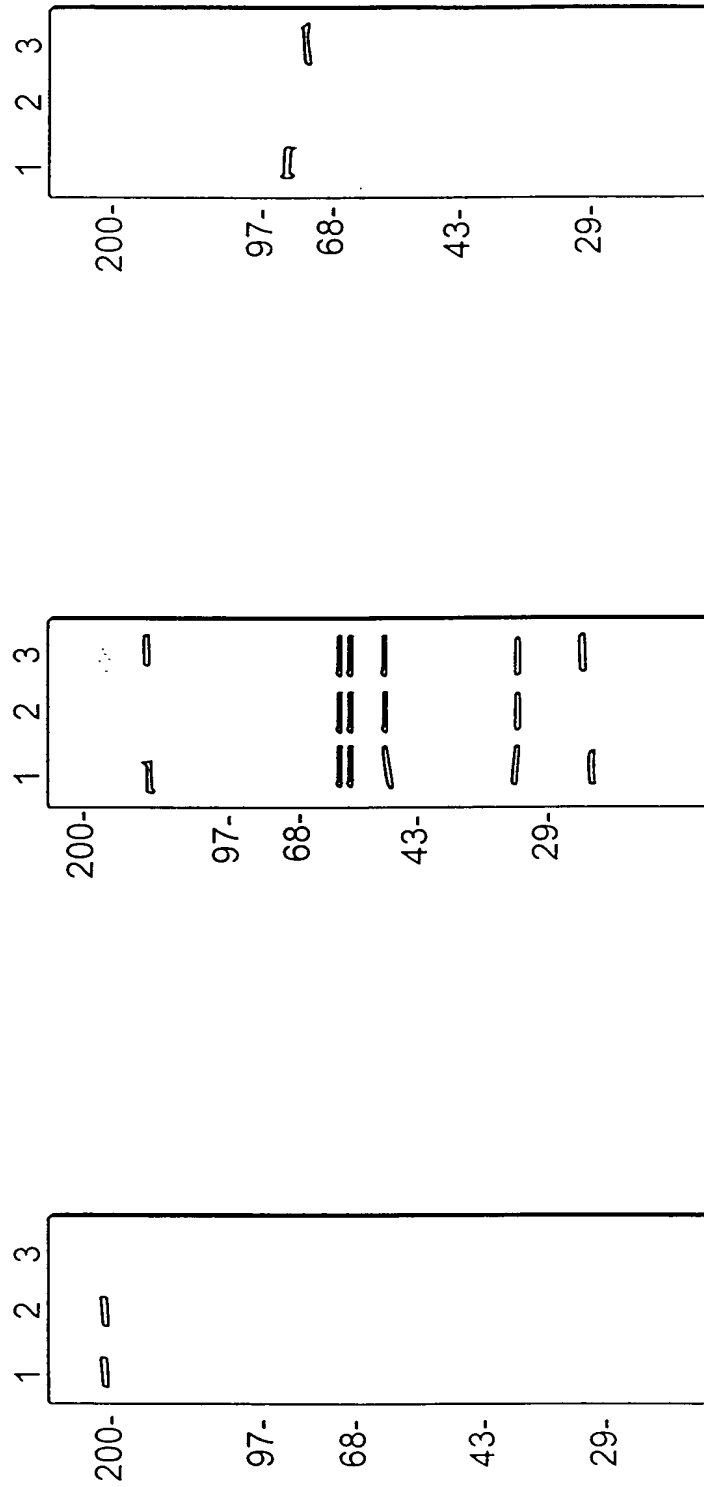
**FIG. 8C**



**FIG. 9A**



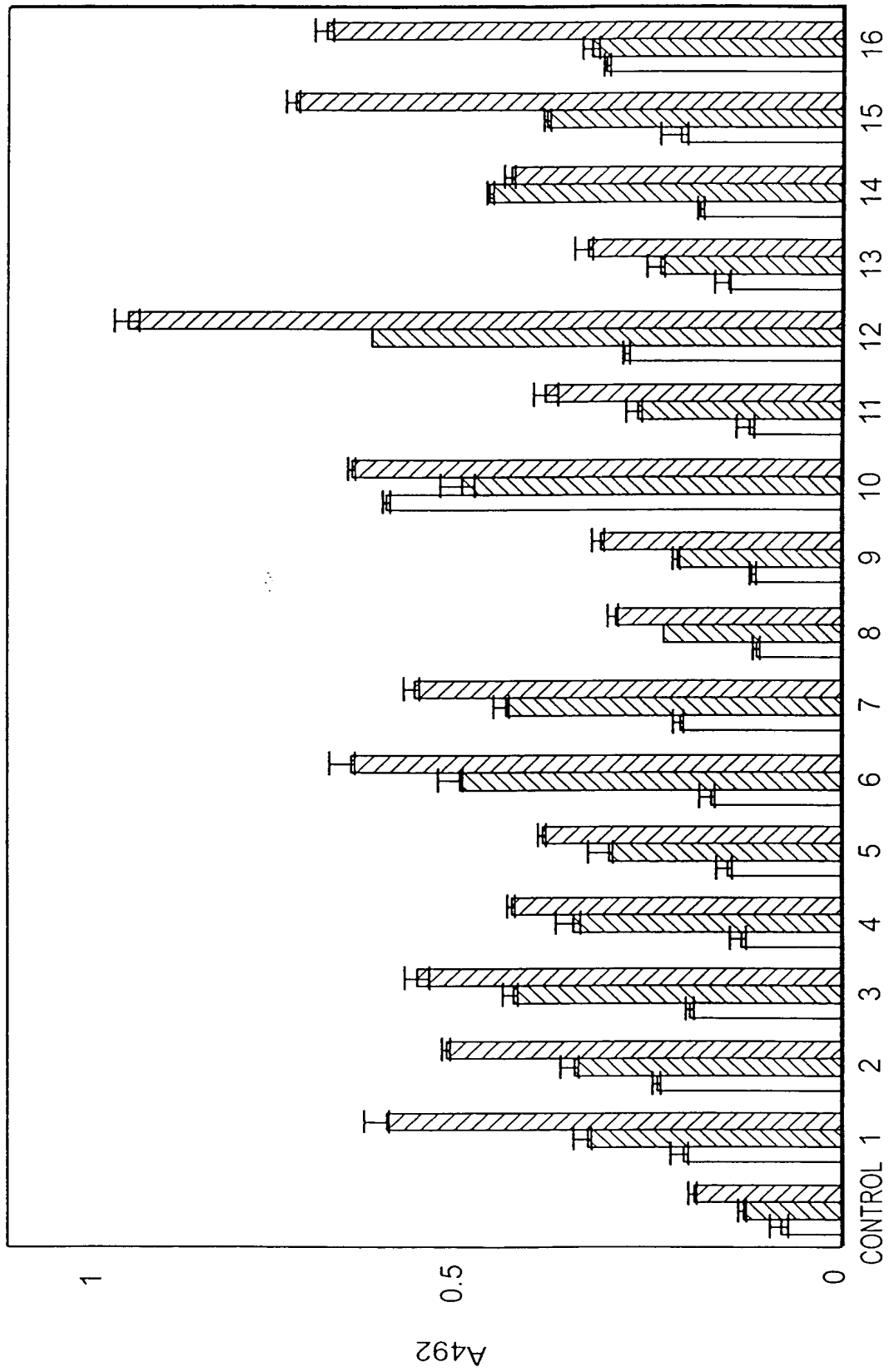
**FIG. 9B**



**FIG. 10A**

**FIG. 10B**

**FIG. 10C**



**FIG. 11**